

Examines 1

Exhibit 1

## Claims on Appeal

Pending daims. 1-10, 13-15, 23-25 0+27

- A method for producing a conditionally-immortalized human 1. mesencephalon neural progenitor cell, comprising:
  - (a) plating human mesencephalon cells on a first surface and in first growth medium that permits proliferation;
  - (b) transfecting said progenitor cells with DNA encoding a selectable marker and an externally egulatable growth-promoting protein; and
  - selecting an adherent monolayer of the transfected cells on a second surface and in a sax and serum-free growth medium that permits attachment and proliferation, where the second serum-free growth medium comprises FGF-2, EGF and PDGF, and therefrom producing a conditionally-immortalized human mesencephalon ells in which the growth-promoting protein is regulated by an external factor, such that suppression of the growth promoting protein results in differentiation of the cell into a neuron.
- The method of claim 1 wherein the first and second surfaces are independently selected from the group consisting of substrates comprising one or more of a polyamino acid, fibronectin, laminin or tissue culture plastic.
- 3. The method of claim 1 wherein the growth-promoting gene is an oncogene.
  - 4. The method of claim 3 wherein the oncogene is v-myc.
- 5. The method of claim 1 wherein expression of the growth-promoting gene is inhibited by tetracycline.
- 6. A conditionally-immortalized human mesencephalon neural progenitor cell capable of differentiation into neuron wherein the cell is transfected with DNA encoding a growth-promoting protein that is regulated by an external factor, such that suppression of the growth-promoting protein results in differentiation of the cell into a neuron, and wherein the cell is polygonal and grows as an adherent monolayer.
- 7. A conditionally-immortalized human mesencephalon neural precursor cell according to claim 6, wherein the cell is capable of differentiation into dopaminergic neurons.

\* See

- 8. A conditionally-immortalized human mesencephalon neural precursor cell according to claim 6, wherein the cell is capable of differentiation into GABA-ergic neurons.
- 9. A method for producing a neuron, comprising culturing a cell produced according to claim 1 in the presence of at least one differentiating agent under conditions that inhibit expression of the growth-promoting gene.
- 10. A method according to claim 9, wherein the cell is cultured in medium comprising tetracycline.
  - 13. A neuron produced according to the method of claim 9.
  - 14. A dopaminergic neuron produced according to the method of claim 9.
  - 15. A GABA-ergic neuron produced according to the method of claim 9.
- 23. A conditionally-immortalized human mesencephalon neural precursor cell produced according to the method of claim 1.
- 24. A cell according to claim 23, wherein the cell is present within a clonal cell line.
- 25. The method of claim 9, wherein the differentiating agent comprises the combination of forskolin, GDNF and CNTF.

\* See Examines's Amendment 26. The method of claim the differentiating agent comprises the combination of forskolin, GDNF, CNF-16F-1 and BDNF.

27. The method of claim 9 wherein said differentiating agent comprises GDNF.